

CLAIMS

1. A printer comprising:

a printing section for providing a print
on a printing paper fed continuously thereto;

5 a cutting section arranged downstream of
said printing section in a paper feeding direction, said
cutting section including a fixed blade and a movable
blade which cooperate with each other to cut the printing
paper, said fixed blade and said movable blade being
10 shiftable relative to each other between a cooperative
mutually-adjoining position and an uncooperative
mutually-remote position;

a support mechanism for supporting said
printing section and said cutting section, said support
15 mechanism including a first support member supporting
said fixed blade of said cutting section and a second
support member supporting said movable blade of said
cutting section, said first support member being fixedly
arranged to specify an operative printing point in said
20 printing section and said second support member being
shiftable arranged relative to said first support member;
and

a drive source provided in said cutting
section for generating driving force to move said movable
25 blade on said second support member, said drive source
being mounted on said first support member.

2. A printer as set forth in claim 1, further
comprising a supplying section arranged upstream of said
printing section in the paper feeding direction and
30 receiving a printing paper in a continuously feedable
manner, wherein said first support member is associated
with a stationary base carrying the printing paper
received in said supplying section, and wherein said
second support member is associated with a shiftable
35 cover joined relatively shiftable with said stationary
base and cooperating with said stationary base to define
a paper receiving space in said supplying section.

3. A printer as set forth in claim 1, wherein said cutting section is further provided with a power transmission mechanism for transmitting the driving force of said drive source to said movable blade to move said movable blade, and wherein said power transmission mechanism includes a first gear train disposed on said first support member and connected with said drive source and a second gear train disposed on said second support member and connected with said movable blade, said first gear train being connected with said second gear train when said fixed blade and said movable blade are in said mutually-adjoining position, said first gear train being disconnected from said second gear train as said fixed blade and said movable blade are shifted from said mutually-adjoining position to said mutually-remote position.

4. A printer as set forth in claim 3, wherein said cutting section is further provided with an elastic member for biasing said movable blade on said second support member toward a retraction position, and wherein said movable blade is operated for cutting by the driving force of said drive source against biasing force of said elastic member when said first gear train is connected with said second gear train, and is retracted into said retraction position under the biasing force of said elastic member when said first gear train is disconnected from said second gear train.

5. A printer as set forth in claim 3, wherein said second gear train includes a pair of pinions rotatable synchronously with each other, said pinions being disposed alongside opposite lateral ends of said movable blade to transmit the driving force to said lateral ends.

6. A printer as set forth in claim 5, wherein said second gear train includes a pair of racks engagable respectively with said pair of pinions, said racks being secured to said lateral ends to cover local surface areas of said movable blade.

7. A printer as set forth in claim 3, wherein said printing section is provided with a paper feed roller disposed on said second support member, a second drive source disposed on said first support member,
5 independently from said drive source for said movable blade, for rotationally driving said paper feed roller on said second support member, and a second power transmission mechanism for transmitting driving force of said second drive source to said paper feed roller, and
10 wherein said second power transmission mechanism includes a third gear train disposed on said first support member and connected with said second drive source and a fourth gear train disposed on said second support member and connected with said paper feed roller, said third gear
15 train being constructed substantially identical with said first gear train.

8. A printer as set forth in claim 3, wherein said printing section is provided with a paper feed roller disposed on said second support member, and wherein said
20 power transmission mechanism is arranged to selectively transmit the driving force of said drive source to one of said movable blade and said paper feed roller to alternatively cause a cutting operation by said movable blade and a feeding operation by said paper feed roller.

25 9. A printer as set forth in claim 1, wherein said cutting section is further provided with a sensor for sensing a location of said movable blade in relation to said fixed blade in said mutually-adjoining position, and a controller for controlling said drive source in
30 accordance with a sensing signal of said sensor.

10. A printer as set forth in claim 1, wherein said cutting section is further provided with a pushing member for elastically pushing said fixed blade on said first support member in a direction such that said fixed blade
35 is abutted to said movable blade.

11. A printer as set forth in claim 1, wherein said cutting section is further provided with a movable blade

guide for guiding said movable blade along a predetermined path during a cutting operation by said movable blade in said mutually-adjoining position.

5 12. A printer as set forth in claim 11, wherein said movable blade guide is disposed on said first support member, and wherein said cutting section is further provided with a release mechanism for forcibly displacing said movable blade guide from a guide position for engagement with said movable blade to a release
10 position for release of said movable blade.

13. A printer as set forth in claim 1, wherein said fixed blade is located upstream of said movable blade in the paper feeding direction when said movable blade and said fixed blade are in said mutually-adjoining position.

15 14. A cutter comprising:

 a fixed blade and a movable blade, which cooperate with each other to cut a printing paper, said fixed blade and said movable blade being shiftable relative to each other between a cooperative mutually-
20 adjoining position and an uncooperative mutually-remote position;

 a first support member supporting said fixed blade and fixedly arranged in association with a supply source of the printing paper;

25 a second support member supporting said movable blade and shiftable arranged relative to said first support member; and

 a drive source for generating driving force to move said movable blade on said second support
30 member, said drive source being mounted on said first support member.

15 15. A cutter as set forth in claim 14, incorporated for use with a printer provided with a printing section, wherein said first support member is capable of being
35 fixedly arranged to specify an operative printing point in said printing section.

16. A cutter as set forth in claim 15, wherein said

printer is further provided with a supplying section arranged upstream of said printing section in a paper feeding direction, wherein said first support member is capable of being associated with a stationary base
5 carrying the printing paper in said supplying section, and wherein said second support member is capable of being associated with a shiftable cover joined relatively shiftable with said stationary base and cooperating with said stationary base to define a paper receiving space in
10 said supplying section.

17. A cutter as set forth in claim 14, further comprising a power transmission mechanism for transmitting the driving force of said drive source to said movable blade to move said movable blade, wherein
15 said power transmission mechanism includes a first gear train disposed on said first support member and connected with said drive source and a second gear train disposed on said second support member and connected with said movable blade, said first gear train being connected with
20 said second gear train when said fixed blade and said movable blade are in said mutually-adjoining position, said first gear train being disconnected from said second gear train as said fixed blade and said movable blade are shifted from said mutually-adjoining position to said
25 mutually-remote position.

18. A cutter as set forth in claim 17, further comprising an elastic member for biasing said movable blade on said second support member toward a retraction position, and wherein said movable blade is operated for
30 cutting by the driving force of said drive source against biasing force of said elastic member when said first gear train is connected with said second gear train, and is retracted into said retraction position due to the biasing force of said elastic member when said first gear
35 train is disconnected from said second gear train.